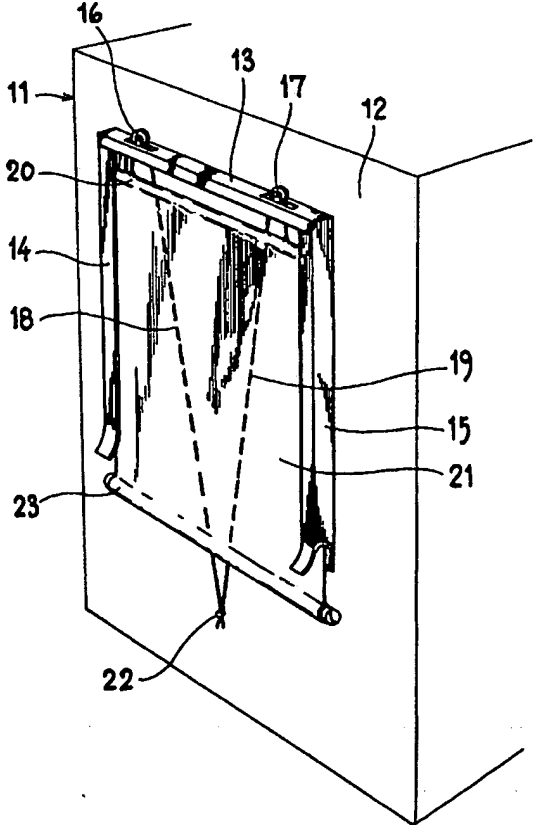


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(21) International Application Number: PCT/NO95/00032 (22) International Filing Date: 14 February 1995 (14.02.95) (30) Priority Data: 940698 1 March 1994 (01.03.94) NO (71) Applicant (for all designated States except US): MELHUUS A/S [NO/NO]; Vestre Rosten 78, N-7005 Trondheim (NO). (72) Inventor; and (75) Inventor/Applicant (for US only): MELHUUS, Torgrim [NO/NO]; Sverdrups v. 21, N-7018 Trondheim (NO). (74) Agent: CURO A/S; P.O. Box 38, N-7094 Lundamo (NO).		(81) Designated States: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO patent (KE, MW, SD, SZ, UG). Published <i>With international search report.</i> <i>In English translation (filed in Norwegian).</i>
(54) Title: DEVICE FOR MOUNTING LARGE POSTERS ON A BUILDING		
(57) Abstract <p>Device for applying a large size poster to a front wall of a building structure. The poster (21) is comprising a flexible sheet, particularly a foil or a textile material, which is provided with a carrying rail (20) at the upper edge, said carrying rail being connected to at least two hoisting lines (18, 19) being guided over guiding members, particularly grooved wheels (16, 17) attached to the wall. A pair of vertical guiding rails (14, 15) are attached to the wall (12) with mutually facing grooves for receiving the side edges of the poster (21). Fastening means (27) is arranged at the lower end of the guiding rails (14, 15) for holding the ends of a lower carrying rail (23) being disposed at the lower edge of the poster.</p> 		

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Device for mounting large posters on a building

The invention relates to a device for applying large size information carrier, such as posters, pictures and similar articles, on vertical surfaces, particularly on buildings, as
5 described in the introductory part of claim 1.

Background

The need for applying large advertising posters on building surfaces has increased.

Until now the applying has been done by gluing paper posters to the wall or to boards
10 attached to the wall. This method is labour consuming and restricting the area to be covered. It also requires repeated work each time a poster or photographic picture is to be applied.

It is also known to apply posters on independent boards which are hoisted to a desirable position.

15

Object

The main object of the invention is to provide a device for mounting or applying large size posters, making an increased size of the poster possible and simplifying the mounting and demounting work.

20 It is another object to provide a device for applying large size posters, which is making it economically possible to change posters at short intervals.

The invention

The base for the invention is flexible posters or pictures, which has the quality to stand
25 the impact of rain and snow, and which has a strain strength to allow being suspended from one side. This may be achieved by laminating photographic paper with plastic foil on one or both sides, or by applying the picture or decoration on a textile web with the necessary strength.

Based on this, the invention is stated in claim 1.

This device allows the applying of deliberately large posters on high house fronts, without using a ladder or a lifting platform. The posters are rapidly mounted, and are well protected against wind and other external influences.

Further advantageous features are stated in claims 2-5.

5

Examples

The invention is described more detailed below with reference to the drawing, in which

Fig. 1 shows schematically a perspective view of a building structure, such a multiple storeyed house or a storage silo, with a device according to the invention suspended,

10 Fig. 2 shows partly in section a front view of a detail at the upper frame element,

Fig. 3 shows a side view of the device in Fig. 1, while

Fig. 4 shows a section through an embodiment of a side guiding rail.

In Fig. 1 a block type building structure 11 is provided with an upper, horizontal frame
15 element or rail 13 being mounted on a side wall 12 of the building structure, a pair of parallel guiding elements or rails 14 and 15 with U-profile with oppositely arranged facing openings of the U-shape being arranged. The elements are mounted with lugs (not shown) to the wall 12. The support element 13 is provided with two grooved wheels 16 and 17 for hoisting lines 18 and 19 which are extending from the lower side of the
20 element, through openings in the element 13, over the grooved wheels, downward through the openings to a crosswise extending rail 20 at the upper edge of a poster 21. This is shown more detailed in Fig. 2. The support element 13 is prepared of a U-rail mounted with the opening facing down, to accommodate the upper edge of the poster 21 with the rail 20. The hoisting lines 18 and 19 are gathered at a fastening member 22 at
25 the lower part of the wall. The poster 21 is at its lower edge provided with a lower rail 23 extending beyond the sides of the posters at both of its ends.

Fig. 2 shows an opening 24 in the web of the support rail 13, with the grooved wheel 16 mounted on a bracket 25, the hoisting line 18 extending through the opening 24, over the grooved wheel 16 and down to a lug 26 attached to the upper poster rail 20.

30 In Fig. 3 the lower end of the guiding rails 14 and 15 are shown, showing in the web of the rails an indent 27 with rounded inner part to accommodate the end of the lower rail

23 and fasten it to the wall. The front flange of the guiding rail has a bevelled end 28 to create a converging entering face.

In Fig. 4 is shown a rail profile to be used for the guiding rails 14 and 15. This profile is different from the example above by having an additional flange 29 in the plane of the wall, and the outer flange 30 being provided with a perpendicular leg 31 at its edge. The wall flange 29 is provided with openings 32 for mounting screws. The outwardly extending flange 31 is provided with a series of openings 33 along its length. The purpose of the openings 33 is to hold a line 34 being arranged in a zigzag-pattern between the guiding rails 14 and 15. The object of the line 34 is to avoid disturbing of the poster by wind. The line 34 may be replaced by a net similarly attached on the guiding rails.

In an alternative embodiment, the hoisting lines 18 and 19 can be extended to a hoisting drum (not shown) with a powered or manual winch at the rail 13 arranged at the upper side of the rail element 13. The indent 27 may be replaced by an arrangement, in which the ends of the lower rail 23 is allowed to enter the lower ends of the guiding grooves of the guiding rails 14 and 15, abutting suitable stopping members.

Claims:

1. Device for applying a large size information carrier to a vertical surface, particularly to a front wall of a building structure, the information carrier (21) comprising a flexible sheet, particularly a foil material or a textile material, which is provided with a carrying
5 rail (20) at the upper edge, said carrying rail being connected to at least two hoisting lines (18, 19) being guided over guiding members, particularly grooved wheels (16, 17) attached to the wall,
characterized in that it comprises
- a pair of vertical guiding rails (14, 15) attached to the wall (12) with mutually facing
10 grooves for receiving the side edges of the information carrier (21), and
 - fastening means (27) at the lower end of the guiding rails (14, 15) for holding the ends of a lower carrying rail (23) being disposed at the lower edge of the information carrier.
- 15 2. Device according to claim 1,
characterized in that a horizontal U-rail (13) with a downward opening is attached to the wall at the upper end of the guiding rails (14, 15).
3. Device according to claim 1 or 2,
20 characterized in that the guiding rails (14, 15) having U-profile, being provided with a side flange (29) extending from the back of the rail, for mounting to a wall.
4. Device according to claim 3,
characterized in that the fastenings means at the lower ends of the guiding rails are U-
25 indents (27) in the web of the guiding rails, the lower end (28) of the front flange of the guiding rails being bevelled to form an inclined entering face.
5. Device according to claim 3,
characterized in that the guiding rails (14, 15) are provided with an outwardly extending
30 flange (31) with openings (33) along its length for entering a line 34 in zigzag-pattern between the guiding rails.

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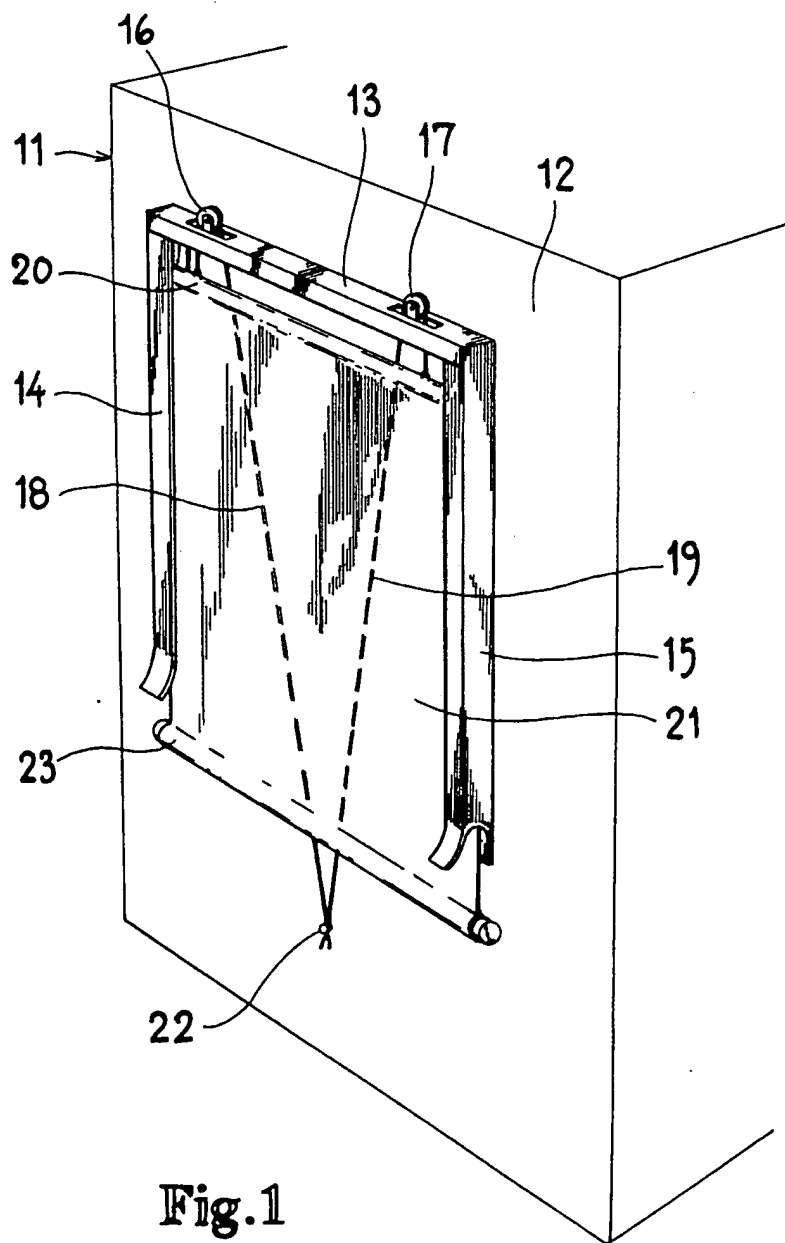


Fig.1

2/2

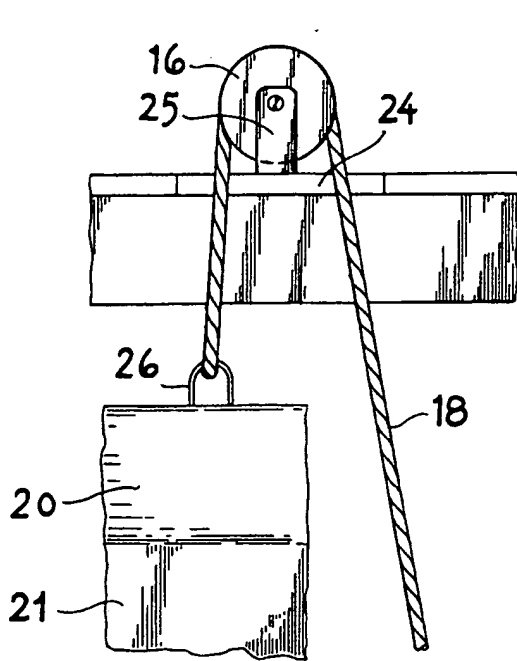


Fig. 2

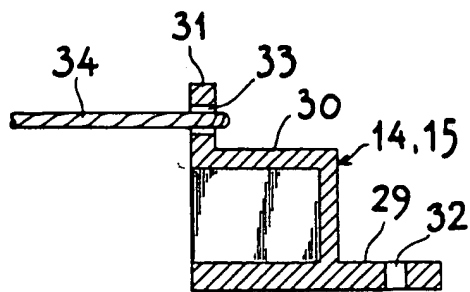


Fig. 4

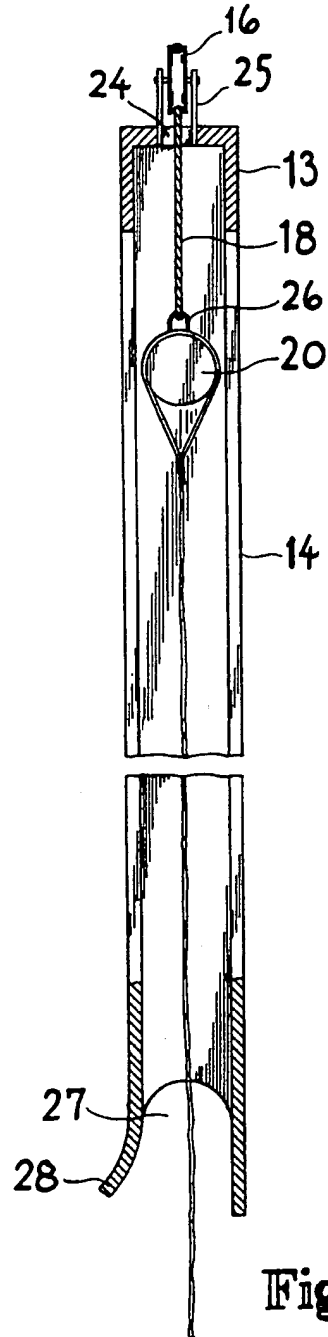


Fig. 3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/NO 95/00032

A. CLASSIFICATION OF SUBJECT MATTER

IPC6: G09F 15/00, G09F 11/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: G09F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US, A, 3938269 (CATTEAU), 17 February 1976 (17.02.76), column 2, line 40 - column 3, line 15; column 3, line 36 - line 55, figures 1-3, abstract --	1-5
A	EP, A1, 0453359 (ETABLISSEMENTS GEORGES KLEIN), 23 October 1991 (23.10.91), figures 1-5, abstract --	1-5
A	DE, A1, 3423975 (SCHLÖSSER, ULRICH), 2 January 1986 (02.01.86), figure 1, abstract -- -----	1-5

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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EP-A1- 0453359	23/10/91	FR-A, B- 2661029	18/10/91
DE-A1- 3423975	02/01/86	NONE	